

Improving compliance in mining through an effective geoscientific information management framework

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ABSTRACT

Geoscientific information management enables the capture, management and delivery of the original geoscientific observations and measurements of the earth's natural resources. However, original observations and measurements are worth nothing if the quality and integrity of the data can't be guaranteed. Geoscientific information is one of the fundamental assets enabling miners to make confident and accurate business decisions, whether that is defining a resource model, performing reconciliation, delivering ore reserve reports or meeting environmental compliance requirements. Without access to reliable, validated or verified data it increases the risk of miners using incorrect information for reporting and compliance. Industry codes, such as JORC, or government regulations, such as environmental compliance requirements, must be adhered to and companies should be able to confidently report to these standards.

Without having a robust information management framework in place, it becomes a challenge to make trustworthy decisions, report confidently and reduce the risk of non-compliance. As a key initiative, good data governance should form one part of a miner's information management strategy. Within the mining industry it is common for companies to only consider technology tools as the key focus for compliance whereas a mature information management focus will additionally consider people and process. All three pillars are critical for a miner to have confidence in their data driven decisions.

This paper discusses an industry framework for best-practice geoscientific information management based on the observations gathered from analysing data management practices within the mining industry. It focuses on how the three pillars of people, process and technology are crucial elements to improve operational decisions and ensure companies are compliant.